CENTER FOR SENSORIMOTOR NEURAL ENGINEERING

Improving lives by connecting brains and technology

September, 2017

Honors and Awards

- Congratulations to **Aiva Ievins** (Moritz Lab) for defending her Ph.D. dissertation successfully.

- Congratulations to **Vamsi Talla** (Smith Lab) who won both the ACM SIGCOMM doctoral dissertation award (https://beta.sigmobile.org/articles/acm-sigmobile-doctoral-dissertation-award) and the ACM SIGMOBILE doctoral dissertation award (http://www.sigcomm.org/awards/dissertation).

- **Katherine Pratt** and **Maggie Thompson** (both in Chizeck Lab) were selected as 2017 Grace Hopper Celebration of Women in Computing (GHC) student scholars.

Upcoming Seminars, Lectures, Courses, Conferences

- "The Beautiful Brain" is a museum exhibit of 80 drawings by neuroscientist Santiago Ramón y Cajal (born 1852; died 1934). From September 5 to December 3, 2017, the exhibit will be displayed at the Morris and Helen Belkin Art Gallery in Vancouver, Canada. For more information about the exhibit, see: http://belkin.ubc.ca/

- International Neuroethics Society Annual Meeting, November 9-10, 2017, Washington, D.C.

- Annual Society for Neuroscience Meeting, November 11-15, 2017, Washington, D.C.

- AAAS Annual Meeting, February 15-19, 2018, Austin, TX.

New CSNE Publications

- **Ievins, A. and Moritz, C.T.,** Therapeutic stimulation for restoration of function after spinal cord injury, *Physiology,* 32:391-398, 2017.

- **Vomero, M**., Castagnola, E., Ordonez, J.S., Carli, S., Zucchini, E., Maggiolini, E., Gueli, C., Goshi, N., Fadiga, L., Ricci, D., **Kassegne, S**. and Stieglitz, T., Improved long-term stability of thin-film glassy carbon electrodes through the use of silicon carbide and amorphous carbon, *8th International IEEE EMBS Conference on Neural Engineering*, Shanghai, China, May 25-28 , 2017.

- Castagnola, E., Carli, S., **Vomero, M.,** Scarpellini, A., Prato, M., Goshi, N., Fadiga, L., **Kassegne, S.** and Ricciless, D., Multilayer poly(3,4-ethylenedioxythiophene)-dexamethasone and poly(3,4-ethylenedioxythiophene)-polystyrene sulfonate-carbon nanotubes coatings on glassy carbon microelectrode arrays for controlled drug release, *Biointerphases,* 12, 031002 (2017); http://doi.org/10.1116/1.4993140.

- **Klein, E.,** Neuromodulation ethics: Preparing for brain-computer interface medicine, in *Neuroethics. Anticipating the Future*, edited by Judy Illes, Oxford: Oxford University Press, pp. 123-143, 2017.

CSNE in the News

- Spinal Injury Patients Could Regain Mobility Through Brain-Computer Interfaces https://futurism.com/spinal-injury-patients-could-regain-mobility-through-brain-computer-interfaces/

- Creating Alternative Communication Highways http://newscenter.sdsu.edu/sdsu_newscenter/news_story.aspx?sid=76853

- Five Reasons to Leave Your Science Bubble (Lise Johnson) http://www.sciencemag.org/careers/features/2017/08/five-reasons-leave-your-science-bubble

New CSNE Blog Posts

- UW DO-IT Scholars visit the CSNE http://csne-erc.org/engage-enable/post/uw-do-it-scholars-visit-csne

- The “Quadfather” visits the CSNE http://csne-erc.org/engage-enable/post/%E2%80%9Cquadfather%E2%80%9D-visits-csne

Recent Papers of Interest to the CSNE Community

- Wang et al., Mapping the fine structure of cortical activity with different micro-ECoG electrode array geometries, Journal of Neural Engineering, Volume 14, Number 5, 2017.

- Diaz-Botia et al., A silicon carbide array for electrocorticography and peripheral nerve recording, Journal of Neural Engineering, Volume 14, Number 5, 2017.

- Nan, T. et al., Acoustically actuated ultra-compact NEMS magnetoelectric antennas, Nature Communications 8, 296 (2017), doi:10.1038/s41467-017-00343-8

- Chen, Y., Chen, L., Wang, Y., Chen, X.Y. and Wolpaw, J.R., Why new spinal cord plasticity does not disrupt old motor behaviors, J. Neurosci., 37:8198-8206, 2017.

Grant Opportunities

- NSF Mind, Machine and Motor Nexus (M3X) https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=505402&WT.mc_id=USNSF_39&WT.mc_ev=click

- BRAIN Initiative: Standards to Define Experiments Related to the BRAIN Initiative (R24) https://grants.nih.gov/grants/guide/rfa-files/RFA-MH-17-256.html

- BRAIN Initiative: Non-Invasive Neuromodulation - Mechanisms and Dose/Response Relationships for Targeted CNS Effects (R01) https://grants.nih.gov/grants/guide/rfa-files/RFA-MH-17-245.html

- BRAIN Initiative: New Technologies and Novel Approaches for Large-Scale Recording and Modulation in the Nervous System (U01) https://grants.nih.gov/grants/guide/rfa-files/RFA-NS-17-003.html

- BRAIN Initiative: Next-Generation Invasive Devices for Recording and Modulation in the Human Central Nervous System (UG3/UH3) https://grants.nih.gov/grants/guide/rfa-files/RFA-NS-17-005.html

Please send additional news and events items for inclusion in this newsletter to Dr. Eric Chudler (CSNE, Executive Director) at chudler@uw.edu.